DOCUMENT RESUME

ED 406 901 HE 030 074

AUTHOR Subotnik, Rena F.; And Others
TITLE Procrastination Revisited: The Constructive Use of Delayed Response.
PUB DATE Mar 97
NOTE 16p.; Paper presented at the Annual Meeting of the American Educational Research Association (Chicago, IL, March 24-28, 1997).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Anxiety; Attitude Measures; *Behavior Patterns; Creativity; Health; Higher Education; Individual Characteristics; Individual Development; Interpersonal Relationship; Performance; *Personality Traits; Productivity; Psychological Characteristics; Self Efficacy; Self Evaluation (Individuals); Sex Differences
IDENTIFIERS *Procrastination

ABSTRACT

This study investigated patterns of procrastination in the domains of health, relationships, employment, and creative outlets in 19 former Westinghouse Science Talent Search winners, age 32 years. A model was synthesized from the available literature and an interview schedule of 14 open-ended items was developed to elicit self-assessments of procrastination behavior in the four domains. Analysis of interview responses regarding the work domain showed that 12 of the subjects did not procrastinate with work activities and nine of these were physicians. None of the seven work-related procrastinators had work-related life or death consequences associated with delay. In the social/family life domain, the clearest factor demarcating procrastinators was gender with none of the seven women subjects reporting that they procrastinated significantly in this domain. In the health domain, 13 of the 19 reported procrastination. In the creativity domain, nine of the subjects were employed in environments where creativity was a central component of work. Four of these reported procrastination and five did not. Although it was anticipated that procrastination would have emotional consequences on all procrastinators this was not found. Discussion focused on sources of procrastination, perfectionistic tendencies, and risk taking. (Contains 28 references.) (JLS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Procrastination Revisited: The Constructive Use of Delayed Response

Rena F. Subotnik
Cynthia Steiner
Basanti Chakraborty

ED 406 901

IAE030 074

BEST COPY AVAILABLE

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Rena F. Subotnik

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

Procrastination Revisited: The Constructive Use of Delayed Response

Rena F. Subotnik
Cynthia Steiner
Basanti Chakraborty

Objectives and perspectives

Procrastination takes a toll on most everyone's life, yet the topic has inspired a relatively sparse amount of research. A majority of the studies in the literature reporting on procrastination use college students as subjects. The remaining non-scholarly works on the topic are written by clinicians as self-help type manuals. The academic environment, with its unique routines and rhythms, is somewhat but not entirely representative of the conditions of normal adult life (Sommer, 1990). Therefore, one objective of this study is to extend the scholarly investigation of procrastination into the "real world."

If we revisit the concept of procrastination by way of its Latin roots, we discover that the original meaning was to avoid impulsiveness (particularly in battle) (Ferrari, Johnson, & McCown, 1995). Over time, as society became dominated by clocks and calendars, exact and measurable deadlines loomed more widely in people's lives. As a result, procrastination was associated with idleness or sloth. A second objective of this study is to present a more complex view of purposeful delay.

The model presented in this paper holds that procrastination can be manifested in various forms, based on the degree to which the behavior is functional or dysfunctional for the person experiencing it (Ferrari, 1994; Milgram, Marshevsky, & Sadeh, 1995). Some people avoid aversive tasks that may bring long-term gain by indulging in short-term distractions (Lay, Knish, & Zanatta, 1992; Rhodewalt, 1994). Over time, this behavior is likely to preclude achieving success or satisfaction in personal, health, work, or creative domains (Ferrari & Olivette, 1994). Other more productive individuals will complete many moderately pressing, yet aversive tasks in order to avoid completing others of even greater personal significance or aversiveness (Boice, 1989; Ellis & Knaus, 1977; Roberts, 1995). And still others will postpone completion of a task to avoid premature response or impulsiveness (Ferrari & Emmons, 1995). This third category of behavior can be viewed as a form of incubation. All forms of procrastination are assumed to elicit some degree of emotional upset (Milgram, 1991).

Procrastination is rarely exhibited in every domain of life. Individuals are more likely to have unique profiles of productivity or avoidance in social, health, work, and creative domains (Roberts, 1995). Remembering to return a letter to a researcher as part of a procrastination experiment may or may not reflect one's punctuality and efficiency in planning a summer

vacation, buying flowers for a helpful assistant, or submitting a proposal to AERA. In short, all but the most self-destructive humans procrastinate in some areas and not in others. An hypothesis explored in this study was that highly productive individuals in creative fields display unique profiles of domain specific procrastination.

Methods and Data Sources

Several questionnaires have been developed for the purpose of categorizing college students into procrastinators or non-procrastinators (Lay, 1986; Solomon & Rothblum, 1984). These instruments are made up of likert scale-type items followed by open-ended questions. The open-ended questions ask participants how they might respond to typical academic situations that are known to evoke procrastination behavior. Another technique involves monitoring the proportion of study participants who mail back a given document within a time frame imposed by an experimenter (Muszynski & Akamatsu, 1991). Although these scales and techniques have provided a basis for the literature on procrastination, the focus of study instruments has remained, predominantly, on the academic domain.

An interview schedule made up of 14 open-ended questions was developed for the purposes of this study. It was designed to elicit self-assessments of participants' procrastination behavior in four domains of adult life: health, relationships, employment, and creative outlets. In every creative field there are routine responsibilities one is obliged to perform that do not require personal expression, passion, or innovation. For example, the work of a research scientist might be inherently creative, but serving on committees or developing budgets for grant proposals may not be viewed by a scientist as activities that exercise his or her originality. Therefore, employment and creative outlets were purposely separated as categories.

The interviews were conducted in person or by telephone with members of a subset of Westinghouse Science Talent Search winners, now 32 years old, who have been participating in a 13-year longitudinal study conducted by the first author and her colleagues (Subotnik, 1986, 1988; Subotnik & Arnold, 1995; Subotnik, Duschl, & Selmon, 1993; Subotnik & Steiner, 1994). The entire cohort of 63 men and 35 women were identified in 1983 by a panel of distinguished scientists as having extraordinary talent in science. This judgement was based on a written report of a research study submitted by the participants to Science Service (the organizers of the competition) in their senior year of high school as part of the 1983 Westinghouse Science Talent Search (WSTS). The WSTS is the most prestigious secondary school science award given in the nation. Winners share in the glory of former awardees, many of whom have established eminent careers. At this point in their lives, most of the members of the 1983 cohort have completed their schooling and have established themselves in various vocational and family constellations.

Professionally, the 19 study subjects can be categorized as follows: two women and eight men are researchers who are expected to create knowledge or innovative solutions to scientific-type problems. Another five women and four men are applied scientists, including six physicians, one engineer, one computer programmer, and an optometrist. The members of this subset were selected for the present study based on two factors: a) they identified themselves as applied or research scientists (as opposed to lawyers, humanities professors, etc.), and b) at the last data collection point (1994), they rated their career status very highly (top 2-5%) or very modestly (top 50%). The criteria they used included awards and publications; or selective residencies, fellowships, or employment opportunities. Nine placed themselves in the top 50th percentile, the lowest ranking chosen by the cohort members in science, and 10 at the elite level. It was predicted that those who ranked themselves as highly productive would have different profiles of procrastination than those who do not.

Results

Profiles in the Domains:

Each subject was asked to assess the existence of his or her procrastination behavior in each of the domains: work, social/family life, health, creativity. When categorized by the number of domains in which the participants procrastinate, eight procrastinate in three out of four domains, five in two out of four domains, five in one out of four domains, and one in none. Notably, those with the highest self-rated career status are distributed among all four of these categories.

Work Domain: This domain encompasses activities that are key to one's professional efforts, yet are not especially creative in nature. When such work is avoided, it tends to create anxiety among those who attach importance to their professional lives. Of the 19 study subjects, 12 do not procrastinate with their work activities, and nine of the individuals in this category are physicians. Patient care is not conducive to delay, although the associated paper work can pile up and cause distress for the physician. Even the paperwork can not accumulate for too long, however, since it impedes patient care. Of the others who do not procrastinate in work, one is a first year medical student who needs to maintain a regular study schedule, another works half time at a non-stressful job so she can spend time with her children and her garden, a third admits to obsessing over details of his work as a way to avoid getting to his research. And a fourth is an across the board non-procrastinator, "I basically don't procrastinate. I never saw the point of it."

None of the seven study subjects who do procrastinate with their work-related activities have to deal with life or death consequences to their delay. Two are academics, one is a master's degree student in science research, two work for federal agencies as scientists, one is a design engineer, and the other an optometrist. Three out of the seven rated themselves among the

50th percentile in their careers. Three women and one of the men who procrastinate with work-related activities prefer to spend time on family or social activities, and three other men put off routine work to make time for creative activity.

Social/Family Life Domain: Maintaining friendships and other social ties helps to keep many individuals' lives on target. The clearest factor that demarcates those who procrastinate in this domain from those who do not is gender. Seven of the 19 subjects are female, and none of them procrastinates significantly in this domain. In fact, three of four mothers in this group have arranged for reduced hours at work to spend more time at home. Each of the four married women reported having to adjust her habits because others were now dependent on how she distributed her time. Three of the five men who said they do not procrastinate in the social/family domain are fathers.

Seven men, three married and four single, say they are somewhat remiss on the social/family front. The two fathers who put off time with family report doing so to meet those demands at work for which they are held most accountable. All expressed concern about not attending sufficiently to spouses, friends, and their own parents. It was expected that those who were engaged at the most elite level of their profession would be more likely to sacrifice social and family life. In fact, the distribution of data does not reveal that career success is related to procrastination in this domain.

Health Domain: Of the six participants who do not procrastinate in this domain, four mentioned working out as an important part of their lives and stress management routine. The other 13 subjects procrastinate with regard to their health, only seeing a physician if they are seriously ill or injured. Clearly, good health is taken for granted and expected at age 32.

Creativity Domain: These data were tricky to analyze. Although everyone is engaged in at least reasonably challenging professional activity, not everyone considers his or her employment a source of creative expression. Only nine of the study members are employed in environments where their creativity, encompassing scientific research and innovative engineering design, is welcome and a central component of their work life. All but one of these fortunate individuals rated themselves as being on an elite trajectory in their field in 1994. And only one is female.

Four of those employed in creative work are procrastinators and five are not. The four procrastinators are all in high powered research positions, two in medicine, one in mathematics, and one in physics. All four have used procrastination as a form of incubation to stave off a premature choice of a scientific problem or solution.

Six study participants, four women and two men, expect to incorporate research into their professional lives in the future. They are all in transitional periods of career development. Two are students, one is moving from a residency to fellowship, another from medical school to residency, two other physicians

are raising small children with whom they devote any spare time outside of patient care. The composition of this group is divided evenly between those with lower-rated and higher-rated career status. Collection of future employment data will confirm whether their expectations for creative productivity are met.

Five members of the cohort work at jobs that have potential for research productivity, yet they find this type of work aversive or uninteresting. Four of these five had rated their career status in 1994 only in the top 50th percentile. One study member dropped out of a PhD program to spend more time with her family and work part time at a reasonably interesting but non-stressful job, "I've always had the pattern of aversion to doing certain things and then avoided it. Now there aren't that many things in my life I want to avoid." Another finds pleasure from participation in an improvisational comedy team. The other three are simply too exhausted from their work as doctors to entertain any outside hobbies or pastimes.

Discussion of Domain-Related Results

It was hypothesized that those who rated themselves three years ago as being in the top 5% or higher in their respective fields would have distinctly different patterns of procrastination than those whose ratings were lower. That is to say, those subjects who viewed themselves as part of an elite in their profession would procrastinate, but to different degrees, for different purposes, and in different domains than peers of equivalent age and potential intellectual ability. The results are partially supportive of the hypothesis.

The "elite" group is made up three women and seven men. Six (one woman and five men) are engaged in employment with high expectations for creative productivity. Four procrastinate with their creative work yet manage to remain highly productive. Four of the high status group only procrastinate in the creative domain, expecting to return to research once they pass through a career transition.

In contrast, only two of the nine who rated their career status as low are employed in creative work. Every one of the seven placed greater emphasis elsewhere, particularly in the social/family domain, where more life satisfaction is derived. Also all seven have experienced disappointment with their careers, particularly in terms of how much effort and competition was required to make a mark. These study subjects appear to hold more fixed versus incremental views of their own ability (Dweck & Leggett, 1988). They are therefore more likely to procrastinate when comparing themselves to others who appear more competitive (Rhodewalt, 1994). Also, the women seemed to internalize setbacks more profoundly than men, perhaps leading to increased procrastination in career-related activities (Cole & Singer, 1991; Ferrari & Olivette, 1974; Rothblum, 1990).

Sources of Procrastination

The clinical literature attributes procrastination behavior to a number of variables including perfectionism, fear of failure and fear of success (Adderholdt-Elliott, 1991; Burka & Yuen, 1983; Ellis & Knaus, 1977; Fiore, 1989; Roberts, 1995; Sapadin, 1996). Because of the non-clinical nature of the investigator-subject relationship, and because most of the interviews were conducted on the phone, a medium not especially conducive to deep self-analysis, subjects were not expected to provide psychotherapeutic level responses. Instead, subjects were asked to reflect on their earliest memories of delaying responsibilities. They were also asked to hypothesize about the source of this behavior. The following responses were representative of the group as a whole:

> I could always get things done at the last minute for a school deadline. With research there's no fixed deadline, and because I love to do it, I don't procrastinate.
>
> The reason I would procrastinate in school, and still do in my life at work, is because I would get stuck at a point in a problem when I didn't know what to do next, or else I simply didn't want to do a given task.
>
> In high school I used to do the unpleasant things first, so then I could do the fun things. By the time I got to college, I realized there was no way I could manage everything and still have fun. Some things just had to get put off.
>
> I learned during childhood that I could wait until the last minute to complete school assignments and still pull it off. Seeing how close I could get to a deadline became my challenge.
>
> I figured out at a young age that if I put off something I don't want to do long enough, it would get done without me.

These revelations were rational outgrowths of three childhood conditions (VanTassel-Baska, 1989): a) being intellectually under-challenged, b) not being held to high standards of responsibility, or c) receiving insufficient instruction and support for completing tasks in school. As the study subjects reached higher levels of education they encountered increasing demands and greater amounts of assigned responsibility. Soon choices had to be made in terms of time commitments. The procrastination response that evolved in

elementary and high school had become an ingrained habit for some:

> Even after I examine my procrastination, or see how quickly things go once you start, it doesn't prevent me from procrastinating again.

This habit can be overcome, only with great effort.:

> I have learned from a psychiatry resident in med school that one of the ways to learn to be a good doctor is to "embrace the terror." That means being able to tackle the tasks that you find most difficult or most fearful first. I no longer see any value in procrastination. It's always best to do something when it is effective.
>
> I hate the idea of being behind because it's like a constant onslaught. The floodgates are always open. The only way you have a chance of keeping your head above water is by bailing fast. If you put things off, things get more complex and you can get that lost feeling of "Where do I begin?" I have a hard time relaxing if things need to be done. I want, more than anything, to experience peace and quiet.

Most, however, have embraced their procrastination and made it work for them. Although some suffer from emotional wear and tear, they remain, for the most part, highly productive.

> Often when I am procrastinating I really have something on the back burner and I need the time to work it through. I can get things done quickly and at a high level once it gets to a certain stage.
>
> Clearly in scientific work, ideas need time to mature. I am often impulsive and my impulses have been wrong. I have had some regrets about that. Also, now that I don't feel compelled to pile citations on my c.v., I feel I can restrain that urge to respond prematurely.
>
> I do seem to work better and with a clearer head under pressure.

Exhibiting Perfectionistic Tendencies

Handling Mediocrity. Perfectionists tend to refrain from turning in work that they consider to be less than exemplary, sometimes holding to impossible standards (Burka & Yuen, 1983). Study participants were asked "What is more embarrassing for you, turning in work that is mediocre, or not turning it in at all?" Those employed in creative research or design were more likely to feel uncomfortable submitting mediocre work. Clearly, more is at stake for them, and as one stated, "Why bother if you're not going to do your best?"

> When something is submitted in final form to be published, it can't be mediocre. If it's work in progress, then I'll try not to be as shy about turning in something that's not so perfect.
>
> I don't need any more listings on my CV. I have many unpublished studies on my shelf. If they're not done to the highest level or will contribute something to the literature, I won't submit them.

Still others find satisfaction in closure, even if the product is not reflective of their potential excellence. One subject who doesn't find his paid work creative stated succinctly: "But at least it's done!"

> Not turning in something that I promised is more embarrassing since it shows that I'm not being responsible or that I'm forgetful. Turning a mediocre piece of work can also be embarrassing, but it can lead to constructive criticism and I might learn something from the experience.
>
> Attaining some degree of task completion is important. It may not be perfect, but it shows some movement toward completion and mastery.

One woman who has turned to part time work as a programmer so she can reduce stress in her life and enjoy raising her young children said:

> I left oceanography because I could never experience closure. It was hard to break projects into little pieces that could be taken care of so I could feel I accomplished something.

Risk Taking. A perfectionist has a hard time risking failure, yet those who must produce creative work cannot survive solely on "crossing t's and dotting i's." Seven out of the eight employed in creative work consider themselves risk takers, and the one who does not said, "I need to be taking risks, but I'm not. I don't want to jump into things and look like an idiot." He knows however, that over time, in order to keep his job, he'll have to overcome this fear. His peers in creative professions have figured out various techniques for dealing with the fear of failure:

> I fail all the time. I am used to picking myself up off the floor. I have good friends who are doing similar things and we support one another a lot.
>
> My jobs have been pretty secure and I haven't had to worry about producing something that would get me hired when my post-doc ran out. As long as something is interesting and it's a fundamental enough problem, I can learn things from projects that don't work.
>
> I always have lots of pots stirring on the stove. That way I can afford to blow a few experiments.

Anxiety. Those who are not employed full time in work that focuses on creative productivity are slightly more anxious about procrastination than those who are not. Yet it became evident from the data that experiencing anxiety was unrelated to whether or where one procrastinated. Instead, anxiety seemed to be part of a subject's emotional profile and philosophy of life. One participant who was committed to an anxiety-free life style cut back on her private practice to spend more time with her children:

> We spend so much time worrying about time that we can forget to enjoy the time we're in right now.

Discussion

This study explored a three-dimensional model of procrastination (see figure 1). One dimension incorporates the notion of domains. The earlier scholarly literature focused primarily on the academic domain. Participants in those studies defined themselves as procrastinators or non-procrastinators based on how they performed in college. In the "real world" there are more opportunities for procrastination, and the 1983 Westinghouse winners who participated in this study covered the full range.

A second dimension of procrastination explored this in this investigation was the degree to which delayed response was functional or dysfunctional. In this sample, only one person has allowed procrastination to hold back significantly her career progress. If she does not complete her work toward her masters degree in the near future, she will have passed the statute of limitations and forfeit the degree. The rest of the participants are evenly divided between those who say, "I only procrastinate on things that are really challenging. Meanwhile I am doing other stuff that counts for something," and those who use procrastination for purposes of avoiding premature response or incubation.

The final dimension of the model includes the presence or absence of anxiety. Although it was anticipated that all who procrastinate suffer emotionally as a result of this behavior, in fact this was not the case.

Limitations

Two major threats to validity must be noted by readers of this article. One is that the sample is small and limited in representation. Employing a small sample size makes it very difficult to denote distinct patterns in the data. Some patterns, however, did reveal themselves and can serve as catalysts for further research. Further, although several of the members of this group are among the most outstanding in their fields, only the creative arenas of research and applied science are represented here, not the arts, social sciences, or leadership, for example.

Another limitation of this study is its reliance on self-report. There is always a tendency on the part of an interviewee to present more socially acceptable responses to the questions posed. In fact, those who identified themselves as the elite in their field are indeed employed in high status positions in desirable locations. Those who rated themselves low relative to the rest of the cohort, however, were more likely to be overly modest. One person, for example had one of the few permanent positions available in astronomy, yet he rated himself in the top 50%.

Educational Importance

Procrastination is a universal behavior. The discomfort it can provoke is manifested in a number of ways that are visible in schools, homes, offices, and places where we conduct our leisure activities. This study extends our empirical view of this behavior beyond the realm of academia. Further, a model synthesized from the available literature presents the opportunity to compare the profiles of productive adults who procrastinate as a mode of incubation with those who are competent but less prolific. This investigation may provide insights into improving the productivity of talented adolescent and adult procrastinators, especially those individuals who are neither dysfunctional nor operating at a maximum level of their potential.

Key References

Adderholdt-Elliott, M. (1991). Perfectionism and the gifted adolescent. In M. Bireley & J. Genshaft (Eds.), Understanding the gifted adolescent: Educational, developmental, and multicultural issues (pp. 65-75). New York: Teachers College Press.

Boice, R. (1989). Procrastination, busyness, and bingeing. Behavior Research and Therapy, 7, 605-611.

Burka, J.B., & Yuen, L.M. (1983). Procrastination: Why you do it, what to do about it. Reading, PA: Addison-Wesley.

Cole, J., & Singer, B. (1991). A theory of limited differences: Explaining the productivity puzzle in science. In H. Zuckerman, J. Cole, & J. Breuer (Eds.), The outer circle: Women in the scientific community (pp. 279-310). New York: W.W. North.

Dweck, C., & Leggett, E. (1988). A social cognitive approach to motivation and personality. Psychological Review, 95, 256-273.

Ellis, A., & Knaus, W.J. (1977). Overcoming procrastination. New York: Institute for Rational Thinking.

Ferrari, J. (1994). Dysfunctional procrastination and its relationship with self-esteem, interpersonal dependency, and self-defeating behaviors. Personality and Individual Differences, 17, 673-679.

Ferrari, J., & Emmons, R. (1995). Methods of procrastination and their relationship to self-control and self-reinforcement. Journal of Social Behavior and Personality, 10, 135-142.

Ferrari, J., & Olivette, M.J. (1994). Parental authority and development of female dysfunctional procrastination. Journal of Research in Personality, 28, 87-100.

Ferrari, J., Johnson, J.L., & McCown, W.G. (1995). Procrastination and task avoidance: Theory, research, and treatment. New York: Plenum.

Fiore, N.F. (1989). The now habit: A strategic program for overcoming procrastination and enjoying guilt free play. New York: Putnam.

Lay, C., (1986). At last, my research on procrastination. Journal of Research in Personality, 20, 474-495.

Lay, C., Knish, S., & Zanatta, R. (1992). Self-handicappers and procrastinators. Journal of Research in Personality, 28, 242-257.

Milgram, N. (1991). Procrastination. In Encyclopedia of Human Biology, Volume 6. New York: Academic Press.

Milgram, N., Marshevsky, S., & Sadeh, C. (1995). Correlates of academic procrastination: Discomfort, task aversiveness, and task capability. Journal of Psychology, 129, 145-155.

Muszynski, S.Y., & Akamatsu, T.J. (1991). Delay in completion of doctoral dissertations in clinical psychology. Professional Psychology: Research and Practice, 22, 119-123.

Rhodewalt, F. (1994). Conceptions of ability, achievement goals and individual differences in self-handicapping behavior. Journal of Personality, 62, 67-85.

Roberts, M.S. (1995). Living without procrastination. Oakland, CA: New Harbinger.

Rothblum, E. (1990). Fear of failure: The psychodynamic, need achievement, fear of success, and procrastination models. In H. Leitenberg (Ed.), Handbook of social and evaluation anxiety (pp. 497-537). New York: Plenum.

Sapadin, L. (1996). It's about time: The six styles of procrastination and how to overcome them. New York: Viking.

Solomon, L.J., & Rothblum, E. (1984). Academic procrastination: Frequency and cognitive behavioral correlates. Journal of Counseling Psychology, 31, 505-509.

Sommer, W. (1990). Procrastination and cramming. Journal of American College Health, 39, 5-10.

Subotnik, R.F., (1986). Scientific creativity: Westinghouse Science Talent Search winners' problem finding behavior. In A.J. Cropley, K.K. Urban, H. Wagner & W. Wieczerkowski (Eds.) Giftedness: A continuing worldwide challenge 147-156). New York: Trillium Press.

Subotnik, R.F. (1988). The motivation to experiment: A study of gifted adolescents' attitudes toward scientific research. Journal for the Education of the Gifted, 11 (3), 19-35.

Subotnik, R.F., & Arnold, K.D. (1995). Passing through the gates: Career establishment of talented women scientists. Roeper Review, 18, (1), 55-61.

Subotnik, R.F., Duschl, R., & Selmon, E. (1993). Retention and attrition of science talent: A longitudinal study of Westinghouse Science Talent Search winners. International Journal of Science Education, 15, (1), 61-72.

Subotnik, R.F., & Steiner, C.L. (1994). Adult manifestations of adolescent talent in science: A longitudinal study of 1983 Westinghouse Science Talent Search winners. In R.F. Subotnik & K.D. Arnold, (Eds.) Beyond Terman: Contemporary longitudinal studies of giftedness and talent. (pp. 52-76). Norwood, NJ: Ablex.

Van Tassel-Baska, J. (1989). The role of the family in the success of disadvantaged gifed learners. Journal for the Education of the Gifted, 13 (1), 22-36.

Figure 1.

MODEL OF PROCRASTINATION

Domains	**Effect on Productivity**	**Level of Anxiety**
-social/family life -health -work -creative	-dysfunctional -selective avoidance -incubation	-anxious -not bothered

How to Procrastinate and Still Get Things Done

By John Perry

I HAVE BEEN INTENDING to write this essay for months. Why am I finally doing it? Because I finally found some uncommitted time? Wrong. I have papers to grade, a grant proposal to review, drafts of dissertations to read.

I am working on this essay as a way of *not* doing all of those things. This is the essence of what I call *structured procrastination*, an amazing strategy I have discovered that converts procrastinators into effective human beings, respected and admired for all that they can accomplish and the good use they make of time.

All procrastinators put off things they have to do. Structured procrastination is the art of making this bad trait work for you. The key idea is that procrastinating does not mean *doing absolutely nothing*. Procrastinators seldom do absolutely nothing; they do marginally useful things, such as gardening or sharpening pencils or making a diagram of how they will reorganize their files when they find the time. Why does the procrastinator do these things? Because accomplishing these tasks is a way of *not* doing something more important.

If all the procrastinator had left to do was to sharpen some pencils, no force on earth could get him to do it. However, the procrastinator can be motivated to do difficult, timely, and important tasks, as long as these tasks are a way of *not* doing something more important.

To make structured procrastination work for you, begin by establishing a hierarchy of the tasks you have to do, in order of importance from the most urgent to the least important. Even though the most important tasks are on top, you have worthwhile tasks to perform lower on the list. Doing *those* tasks becomes a way of not doing the things higher on the list. With this sort of appropriate task structure, you can become a useful citizen. Indeed, the procrastinator can even acquire, as I have, a reputation for getting a lot done.

THE MOST PERFECT SITUATION for structured procrastination that I have encountered occurred when my wife and I served as resident fellows in Soto House, a Stanford University dormitory. In the evening, faced with papers to grade, lectures to prepare, and committee work to do, I would leave our cottage next to the dorm and go over to the lounge and play Ping-Pong with the residents or talk things over with them in their rooms—or even just sit in the lounge and read the paper. I got a reputation for being a *terrific* resident fellow, one of the rare profs on campus who spent time with undergraduates and got to know them. What a setup! Play Ping-Pong as a way of not doing more important things, and get a reputation as Mr. Chips.

Procrastinators often follow exactly the wrong tack. They try to minimize their commitments, assuming that if they have only a few things to do, they will quit procrastinating and get them done. But this approach ignores the basic nature of the procrastinator and destroys his most important source of motivation. The few tasks on his list will be, by definition, the most important. And the only way to avoid doing them will be to do nothing. This is the way to become a couch potato, not an effective human being.

At this point you may be asking, "How about the important tasks at the top of the list?" Admittedly, they pose a potential problem.

The second step in the art of structured procrastination is to pick the right sorts of projects for the top of the list. The ideal projects have two characteristics—they seem to have clear deadlines (but really don't), and they seem awfully important (but really aren't). Luckily, life abounds with such tasks. At universities, the vast majority of tasks fall into those two categories, and I'm sure the same is true for most other institutions.

Take, for example, the item at the top of my list right now—finishing an essay for a volume on the philosophy of language. It was supposed to be done 11 months ago. I have accomplished an enormous number of important things as a way of not working on it. A couple of months ago, nagged by guilt, I wrote a letter to the editor saying how sorry I was to be so late and expressing my good intentions to get to work. Writing the letter was, of course, a way of not working on the article. It turned out that I really wasn't much further behind schedule than anyone else. And how important is this article, anyway? Not so important that at some point something that I view as more important won't come along. *Then* I'll get to work on it.

Let me describe how I handled a familiar situation last summer. The book-order forms for a class scheduled for fall were overdue by early June. By July, it was easy to consider this an important task with a pressing deadline. (For procrastinators, deadlines start to press a week or two after they pass.) I got almost daily reminders from the department secretary; students sometimes asked me what we would be reading; and the unfilled order form sat right in the middle of my desk for weeks. This task was near the top of my list; it bothered me—and motivated me to do other useful, but superficially less important, things. In fact, I knew that the bookstore was already plenty busy with forms filed by non-procrastinators. I knew that I could submit mine in midsummer and things would be fine. I just needed to order popular books from efficient publishers. I accepted another, apparently more important, task in early August, and my psyche finally felt comfortable about filling out the order form as a way of not doing this new task.

> "If all the procrastinator had left to do was to sharpen some pencils, no force on earth could get him to do it."

AT THIS POINT, the observant reader may feel that structured procrastination requires a certain amount of self-deception, since one is, in effect, constantly perpetrating a pyramid scheme on oneself. Exactly. One needs to be able to recognize and commit oneself to tasks with inflated importance and unreal deadlines, while making oneself feel that they are important and urgent. This clears the way to accomplish several apparently less urgent, but eminently achievable, tasks. And virtually all procrastinators also have excellent skills at self-deception—so what could be more noble than using one character flaw to offset the effects of another?

John Perry is a professor of philosophy at Stanford University.

LETTERS TO THE EDITOR

The Current State of Legal Education

TO THE EDITOR:

The force of Robert L. Potts's broadside indictment of the current state of legal education ("Too Many Lawyers, Too Few Jobs," Opinion, February 2) rests in part upon his erroneous belief that law schools are being deluged by applicants somehow attracted by the "glamorization" of the legal profession in the popular media. The number of applicants to law schools approved by the American Bar Association reached an all-time high of just under 100,000 in 1990-91. Last year (1994-95), the number of applicants was down to 78,000, clearly fewer than two applicants for each of the approximately 43,000 first-year seats available. Moreover, this decline is continuing with no end in sight.

These numbers should provide a sobering corrective to any temptation that university presidents and governing boards might have to create new law schools. While there have been several newly accredited schools over the past few years, the number of first-year seats has remained remarkably stable since the late 1970s. With the Law School Admission Council actively encouraging its member schools to reduce the size of entering classes, the number of law-school graduates is very likely to decline over the next decade. "Market" forces are, indeed, working without the extreme measures President Potts advocates, such as arbitrary restrictions on new admissions to the bar or a national moratorium on the establishment of new law schools.

A wholesale conversion of legal education in the United States to a system based upon a European or Japanese model seems equally unrealistic. At the same time, the A.B.A. and the law schools are quite conscious of the need for improvements, especially in the quality of the academic foundation provided by undergraduate institutions to students before they enter law school.

For the past two years, the A.B.A.'s Section on Legal Education and Admissions to the Bar has been working on a new A.B.A. statement on "Preparation for Law School," which, while rightly avoiding the prescription of any rigid or narrowly focused "pre-law curriculum," does outline with considerable specificity the knowledge and skills needed for the study and practice of law. Several undergraduate pre-law advisers, including members of the Pre-Law Advisor National Council, have assisted in the drafting of this document. University presidents and academic administrators interested in making a practical and meaningful contribution to the quality of legal education can work with their pre-law advisers and faculty to ensure that the pre-law programs at their own institutions meet the guidelines set forth in this statement, which I expect will be issued publicly before the end of this year.

F. X. J. HOMER
Professor of History
Pre-Law Adviser
University of Scranton
Co-Editor
PLANC Points, the newsletter of the Pre-Law Advisor National Council
Scranton, Pa.

■

TO THE EDITOR:

It is fitting that Robert Potts's analysis of the proliferation of lawyers was printed on February 2, Groundhog Day, and that the article ended on the same page as the cartoon showing the groundhog lecturing on the relationship between the angle of the sun and the angle of the resulting shadow.

If law students wake (on any given day) and see their shadows, the prediction is that there will be too many graduates chasing too few jobs. If they don't see their shadows, the prediction is that there will be jobs chasing too few graduates.

Legal education is excellent training, but the lofty dreams of the legal profession suffer the combined impact of a number of ills—too many, perhaps, to recount here.

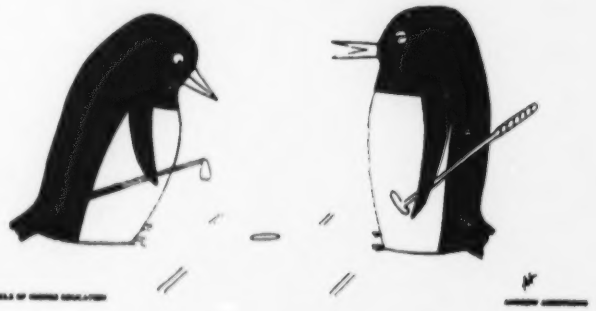
TOM GROGAN
Special Assistant to the Chancellor
University of Wisconsin at Oshkosh
Oshkosh, Wis.

■

TO THE EDITOR:

President Potts's article, a wholesale attack on the training

Continued on Page B3



"Next time, drill the cup only halfway through the ice."

Chronicle of Higher Ed
Vol. XLII #24 Feb 23 1996
B3

BEST COPY AVAILABLE